

Claims

1. A construction element, comprising:  
at least one first side with at least one first opening;  
at least one second side with at least one second opening;  
at least one first space between the first and second side which is connected to  
5 the first opening;  
at least one second space between the first and second side which is connected  
to the second opening and  
at least one connection between the first side and second side which bounds  
the spaces at least partly,  
10 wherein the first side, the second side and the connection form one integral  
whole and at least one of the spaces narrows towards the opening connected to  
it.
2. A construction element according to claim 1 or 2, wherein at least  
one of the spaces is conical or pyramidal.
- 15 3. A construction element according to claim 1 or 2, comprising: at  
least two beam-shaped connections between the first and second side, which  
bound the spaces at least partly.
4. A construction element according to claim 3, wherein the beam-  
shaped connections form generatrices of a cone or ribs of a pyramid.
- 20 5. A construction element according to claim 3 or 4, wherein the beam-  
shaped connections also form ribs of the construction element.
6. A construction element according to any one of the preceding claims,  
wherein the first space and the second space overlap at least partly.
7. A construction element according to any one of the preceding claims,  
25 wherein less than 10% of the surface of the first side is formed by openings.
8. A construction element according to any one of the preceding claims,  
wherein less than 10% of the surface of the second side is formed by openings.

9. A construction element according to any one of the preceding claims, wherein the spaces comprise at least 50% of a volume of the construction element located between the first side and second side.
10. A construction element according to any one of the preceding claims, 5 wherein the spaces comprise 90% of a volume of the construction element located between the first side and second side.
11. A construction element according to any one of the preceding claims, wherein the first side and the second side are at a distance from each other.
12. A construction element according to any one of the preceding claims, 10 wherein the first side is not parallel to the second side.
13. A construction element according to any one of claims 1 – 13, wherein the first side and the second side are substantially parallel.
14. A construction element according to any one of the preceding claims, further comprising:
  15. at least one side surface between the first and the second side.
  16. A construction element according to any one of the preceding claims, wherein at least one of the side surfaces or sides is at least partly curved.
  17. A construction element according to claim 14, wherein at least one of the side surfaces or sides is single-curved.
  18. A construction element according to claim 14 and one or more of claims 1 – 16, wherein the surface of at least one of the first and second sides is annular and between the sides, a first side surface and a second side surface 25 are present.
  19. A construction element according to claim 18, wherein the diameter of the annular first side is greater than the diameter of the annular second side.

20. A construction element according to claim 15 and one or more of claims 1 – 19, wherein the first side surface and the second side surface have a greater surface than the first side or the second side.

21. A construction element according to any one of the preceding claims, 5 wherein at least one of the side surfaces is disc-shaped.

22. A construction element according to any one of the preceding claims, with a spherical element surface comprising the first side and second side.

23. A construction element according to any one of the preceding claims, which is, at least partly, of aluminum.

10 24. A mirror, comprising a construction element according to any one of the preceding claims, at least one side or surface of which is a reflecting surface, at least partly.

25. A mirror according to claim 24, wherein the construction element is a construction element according to claim 20 and one of the disc-shaped side 15 surfaces comprises a reflecting surface.

26. A method for manufacturing a construction element according to any one of claims 1 – 25 from a workpiece with at least a first side and at least a second side, the method comprising:

- providing a first opening in the first side;
- removing material, at least partly, located between the first and 20 second side via the first opening, so that a first hollow space is obtained in the workpiece;
- providing a second opening in the second side and
- removing material, at least partly, located between the first and 25 second side via the second opening, so that a second hollow space is obtained in the workpiece;
- wherein the removal of material is carried out such that between the first side and second side at least one connecting element is formed bounding the spaces at least partly and at least one of the spaces narrows towards the opening connected to it.

27. An apparatus for manufacturing a construction element according to one or more of claims 1 – 25, comprising at least one machining element; and at least one holder for at least one workpiece and
- 5 at least one control apparatus for driving the at least one machining element and the at least one holder, wherein the at least one control apparatus comprises at least units for:
- providing at least a first opening in a first side; removing material, at least partly, located between the first and a second side
- 10 with the at least one machining element via the at least one first opening, so that at least a first hollow space is obtained; providing at least one second opening in a second side and removing material, at least partly, located between the first and second side with the at least one machining element via the at least second opening, so that at least a second hollow space is obtained; the arrangement being such that at least one of the spaces narrows towards the opening connected to it.
- 15 28. An apparatus according to claim 27, wherein at least one of the at least one machining elements comprises a multiaxial milling apparatus.
29. A data carrier provided with data representing a program loadable
- 20 in a programmable apparatus, which program comprises program code for carrying out one or more steps of a method according to claim 26 with an apparatus according to claim 27 or 28.